

DATA SHEET

FIREMIKS® 6000-1-PP-F

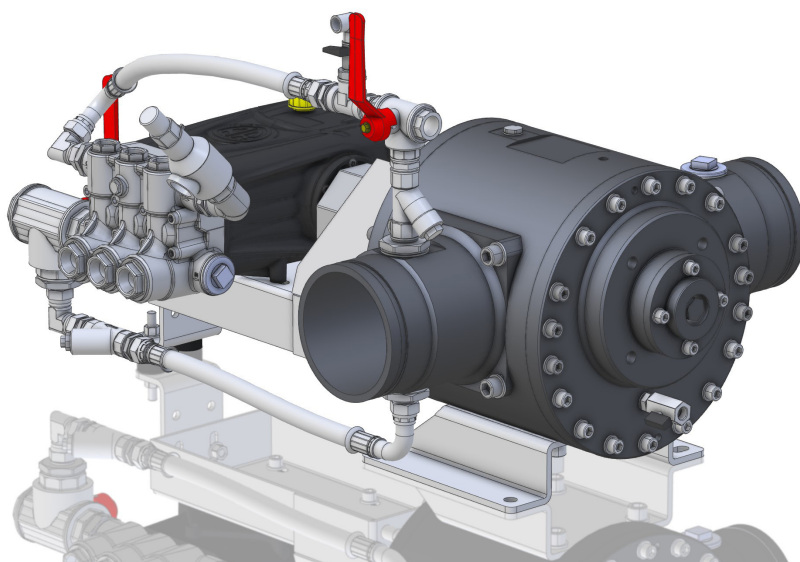
PISTON PUMP TYPE FOR FIXED INSTALLATIONS

1% dosing system for firefighting – for fixed installations connected to a concentrate tank with gravity feed to the dosing piston/plunger pump. Extinguishing water drives the volumetric water motor, which in its turn drives the positive displacement concentrate piston/plunger pump that doses the correct amount of foam concentrate in the extinguishing water.

Equipped with a Manual air relief valve. Flushing of dosing pump is done automatically when the concentrate inlet is closed with Selector valve Dosing/Flushing, (no 4 on Flow chart). Supplied with Flap check valve for concentrate inlet and Wrench to rotate the unit by hand at maintenance.

In-house designed multi-vane water motor giving early volumetric function without using moving elastomer sealings. Correct dosing at system pressures from 2 to 16 bar and from min flow* up to 6000 lpm.

Available in different water motor material (Ni-Al-Bronze) and with an optional Dosing/Return valve (DRV) that allows for testing the system without mixing the concentrate, a Pressure Relief valve (PRV) also included. More options towards the end of this document.



Note: For illustration only, refer to Dimensional Drawing for accurate representation

TECHNICAL DATA

Max water flow rate:	6000 lpm (1587 US gpm) @ 720 rpm
Min water flow rate @ 8 bar 1-20 cP*:	400 lpm (106 US gpm)
Min water flow rate @ 4 bar 1-20 cP*:	350 lpm (92 US gpm)
Viscosity range**	1-1800/3600 cP (Brookfield #4 60/30rpm)
Dosing rate***	1%
Max inlet operating pressure:	16 bar (232 psi)
Factory tested pressure:	24 bar (350 psi)
Suction height:	0 meters (0 ft) Gravity feed
Operation temperature:	1°C to 55 °C (34°F to 131°F)
Storage temperature, dry condition	-30°C to 55°C (-22° to 131°F)
Connections water motor Cut Groove (ANSI/AWWA C 606-04)	Cut Groove 6" - DN 150 - 168,3 mm (Option Cut Groove 8" - DN 200)
Connection pump G (ISO 228-1) female:	G 1 ½" (1,5") - DN 40
Concentrate delivery pipe/hose diameter:	1 ½" recommended, 2" for long piping/high viscosities

*Notes on minimum flow:

- Minimum flow rate is the flow where dosing reaches 1%.
- Minimum flow changes depending on system pressure and viscosity properties of the concentrate and design of the suction line. See Instruction Manual.
- Below min flow, there is still dosing if the unit is rotating.
- Once min flow is reached in a typical installation, usually dosing is no longer pressure sensitive at higher flows.

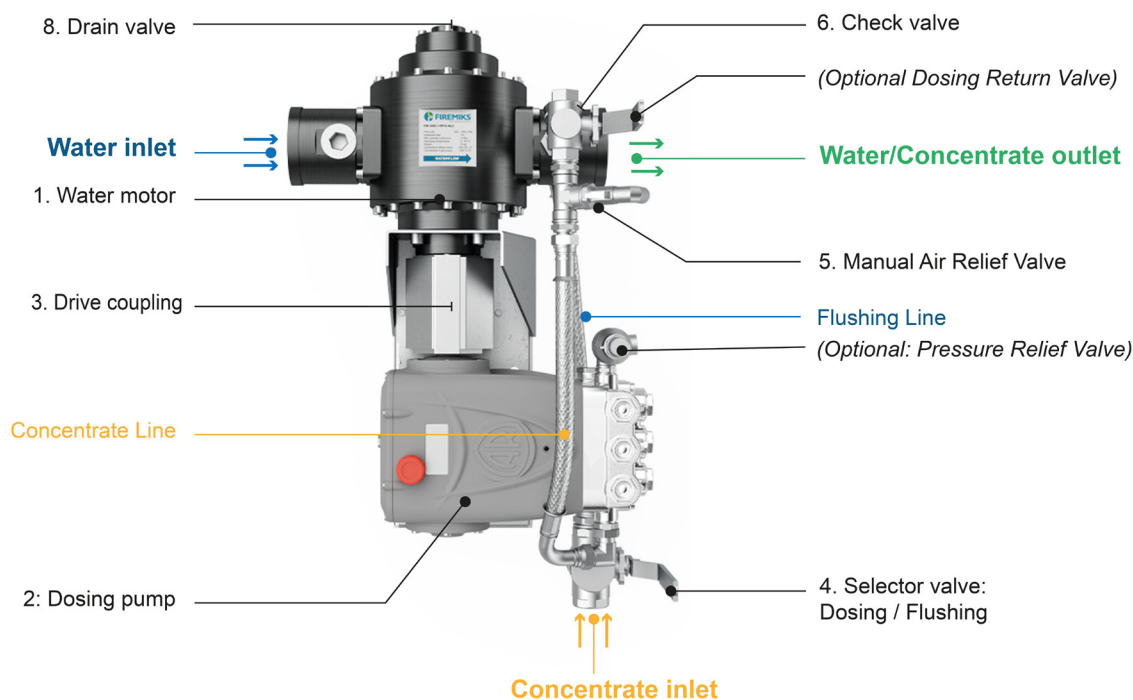
**Consult with Firemiks AB for higher viscosities.

***Dosing tolerance 1% to 1,3% according EN 13565, NFPA 11 and FM5130

FIREMIKS Bronze – For salt water/offshore

▶ 2025-04-30

MAIN PARTS OVERVIEW



(Generic representation. Consult your dimensional drawing for a correct representation of your specific unit.)

RECOMMENDED SPARE PARTS FOR 2 – 5 YEARS

Water motor parts	Dosing pump parts	Complete unit parts
1.10 Set of vane plates (4 pcs)	2.10 Water seals and plunger kit	3.11 Manual Air relief valve
1.20 Set of Mechanical Seals (2 pcs)	2.20 In/Out valve kit	3.20 Check valve
1.30 Set of Ball Bearings (2 pcs)		3.30 Complete Drive gears + Wedges
1.40 Set of O-rings (8 pcs)		3.40 Filter flushing line
1.45 Set of Gable inserts (2 pcs)		

Always mention the serial number of the units concerned when ordering spare parts.

OPTIONAL FEATURES / ITEMS

Features / Items	Description
Reversed water flow direction (right to left) or Vertical flow direction (upwards or downwards)	Standard flow direction is from left to right seen from pump side.
Dosing/Return valve (DRV)	Valve for returning the concentrate to the tank, making it possible to check the functioning of the unit and to measure the admixture rate with suitable equipment's (see below), without generating water/foam solution. Including pressure relief valve (PRV) to avoid over-pressure, in case the return line is blocked for discharge for any reason.
DRV dosing rate measuring equipment	Measuring equipment's consisting of one mag flow meter for water flow, one mag flow meter for pumped concentrate and a pressure regulating valve for simulating working pressure in return line.
Handheld Tachometer for RPM measurement	Used to give an estimate of the water flow through the water motor and to compare with max flow rpm stated on this Data sheet, to ensure that unit is not over-speeding, especially at start-up (see Instruction Manual). Note: RPM cannot be used to correctly verify the dosing rate as the actual unit flow performance is not verified with this method.
High temperature application above 55°C (131°F).	Unit adapted with materials for usage up to 80°C (176°F). Relevant low temperature performance may be affected.
Alternative Water motor connections/Couplings	Flanges (ANSI, DIN), Storz couplings, etc.

Features / Items (cont.)	Description
Y-strainer	If the firefighting water contains foreign/solid particles a strainer in the main water line before the FIREMIKS is a necessity.
High-grade stainless-steel ball valves	Replacing brass valves (Already standard on Bronze and SS water motor version and valves with iso5211 interface)
Stainless steel selector valves with iso 5211 interface	For automated usage with (fast) actuators. Contact us to align specifications.
Certifications / Factory Acceptance tested (FAT)	Each unit can be type tested according to applicable parts of NFPA 11 or EN 13565, Factory Acceptance tested (FAT) or delivery inspected by DNV-GL or Bureau Veritas.
Check valve on internal flushing line	To avoid leakage of concentrate in dry pipe or non-pressurised water pipe systems, if wrong handling of the Dosing / Flushing valve occurs.
Higher spring rate in check valve in internal dosing line	To avoid leakage of concentrate in dry pipe or non-pressurised water pipe systems in combination with gravity feed.
Material certificates EN 10204	Depending on availability, material certificates for the water motor materials and some other parts can be provided if specified when ordered.
Supervisory switch	1NC+1NO switch on the Dosing / Flushing valve, allowing remote confirmation that the valve is in the dosing position. Also available on the optional DRV valve.

APPROXIMATE GROSS WEIGHT AND DIMENSIONS OF GOODS

The unit is delivered on a EUR pallet, with instruction manual in printed form.

Overall dim of packaging. L x W x H cm:	120 x 80 x 95	
Weight of packaged goods:	Aluminium	240 kg
	Bronze	402 kg

Note! Weight and dimensions specified here serves only as a guideline, and may vary depending if you choose different optional equipment. Correct weight and dimension of the goods are given before delivery.



FIREMIKS® is a registered trademark owned by Firemiks AB in Sweden.

Firemiks AB is SS-EN ISO-9001:2015 certified by Bureau Veritas.

Scope of supply: Development, production and sales of water motor driven dosing systems for firefighting.

CE FIREMIKS® is CE-marked, as production is made according to European Directive 2006/42/EC.

Conforms to applicable parts of NFPA 11 and NFPA 1901.



We reserve the right to make changes in the specifications without prior notice.

Firemiks AB | Sweden | VAT.no SE 556799500501
 Phone +46-8-551 196 10 | info@firemiks.com | www.firemiks.com
 ISO 9001 Certified by Bureau Veritas